

STATE ROUTE



Transportation Concept Report

Office of System Planning

July 2006

DRAFT



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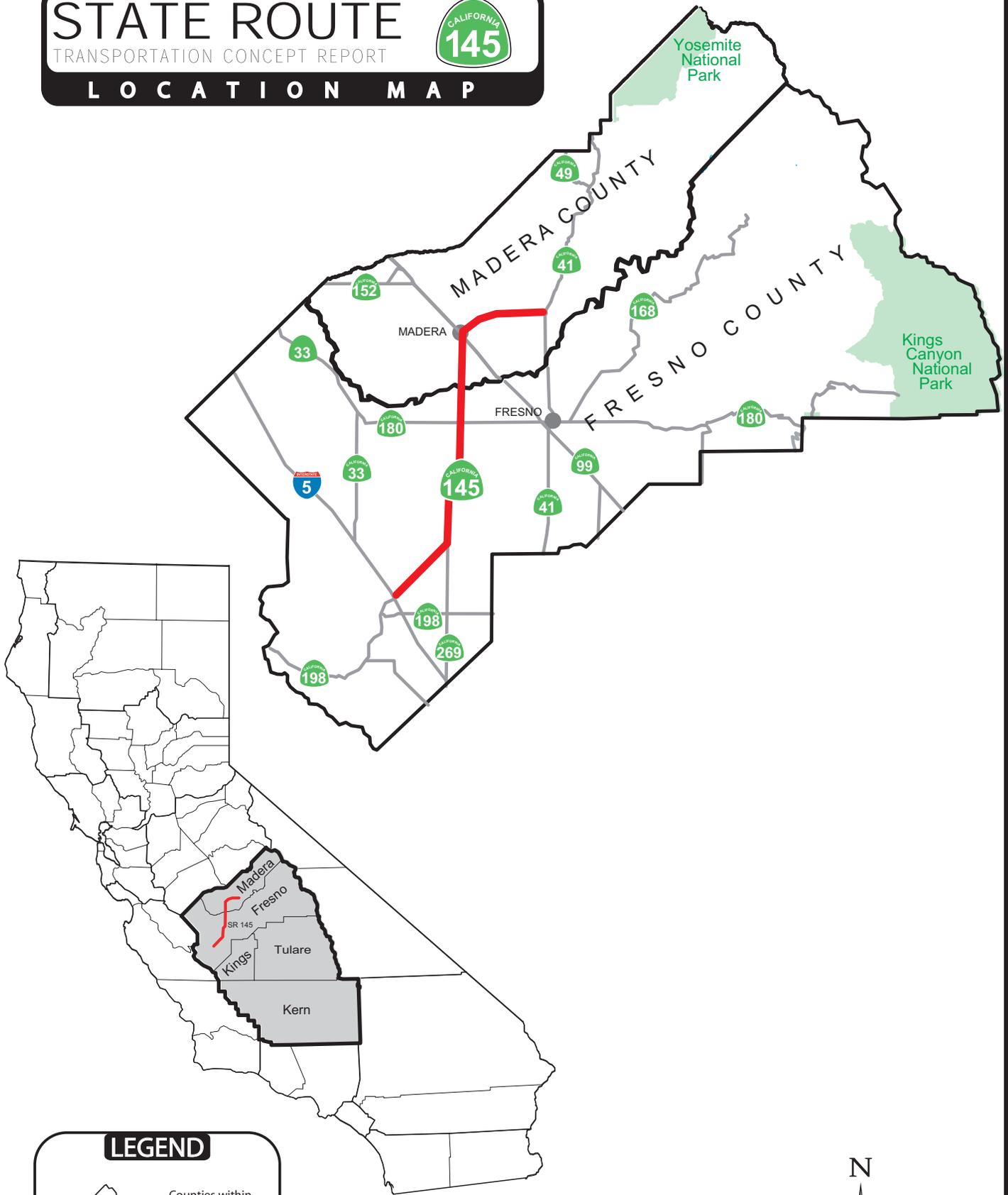
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	Pages
Location Map	i
 Transportation Concept Report for State Route 145	
I. Introduction	1
II. Route Description and Purpose	1-4
III. Segment Map Text (Pg. 5); Segment Map (Pg. 6)	5-6
IV. Geometrics, Land Use, and Environmental Considerations	7-10
V. Concept Rationale	10-11
VI. Summary Chart Text (Pg. 11); Summary Chart 1-A, 1-B, 2-A, 2-B (Pgs. 12-15)....	12-15
VII. Route 145 Performance: Current and Future	16
VIII. Planned & Programmed Improvements	17
 Appendix	
References	A-1
Glossary	A-2 - A-9
Intelligent Transportation Systems (ITS)	A-10
Transit Services	A-11
Bicycle Facilities	A-12 - A-13
Pedestrian Facilities	A-14

STATE ROUTE

TRANSPORTATION CONCEPT REPORT

LOCATION MAP



LEGEND

Counties within District 6 which SR 145 traverses

Caltrans District 6 Boundary



Not To Scale



DRAFT
Transportation Concept Report
State Route 145
July 2006

I. INTRODUCTION

The Transportation Concept Report (TCR) is a long-range system planning document that establishes a planning concept for the corridor through the year 2030. The TCR provides route data and information, as well as current and projected (years 2006, 2015, and 2030, respectively) operating characteristics.

Considering reasonable financial and physical constraints, the TCR defines the appropriate Concept Level of Service (Concept LOS) and facility type(s) for each route. It also broadly identifies the nature and extent of improvements needed to attain the Concept LOS. Capacity-enhancing improvements, such as lane additions, are the primary focus for LOS attainment.

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, or whichever LOS is feasible to attain. For the purpose of this document, however, the Concept LOS is a “target” LOS determined by the importance of the route and environmental factors. A deficiency (need for improvement) is triggered when the actual LOS falls below the Concept LOS.

The TCR also identifies transit, notably the High Speed Passenger Rail System, and the deployment of Intelligent Transportation Systems (ITS) as integral to route corridor development.

The Ultimate Transportation Corridor (UTC), or Ultimate Facility, as identified in this TCR, ensures that adequate right-of-way (ROW) is preserved for ultimate facility projects beyond 2030. However, the UTC does not consider funding as a constraint. Caltrans District 6 System Planning staff should be consulted for the interim ROW (prior to ultimate construction) for a specific location along the corridor. This document identifies the initial and conceptual planning phase that leads to subsequent programming and the project development process.

Consequently, the specific nature of proposed improvements, such as roadway width, number of lanes, and access control might change in later project development stages. Final determinations are normally made during the project report and design phases.

Therefore, a TCR is a “living document,” subject to amendments as conditions change and projects are completed. System Planning staff will update the TCR on a three-to-five year cycle or as needed.

The TCR for State Route 145 was prepared and completed by District 6 Office of System Planning staff in cooperation with local and regional agencies and other Caltrans functional

units. As such, it will serve as a guide in cooperative planning and implementation of transportation and land use decisions.

II. ROUTE DESCRIPTION AND PURPOSE

Begins: At Interstate 5, near Oilfields in Fresno County

Ends: At Route 41 (9 miles north of the City of Fresno) in Madera County.

Route 145 is approximately a 67-mile long highway located in Fresno and Madera Counties. Route 145 begins at Interstate 5, near Oilfields in Fresno County and ends at Route 41 in Madera County. The entire length of the route is located within District 6. Route 145 is predominantly a 2-lane conventional highway facility with a mix of 4-lane portions in Kerman and Madera urban corridors. It serves primarily agricultural traffic in the rural areas, and a mix of commuter and through traffic in the urban areas.

At the beginning of the document (Location Map, page “i”) is a map showing the location of Route 145 within District 6.

Land Use: The predominant land use along the Route 145 corridor is crop production and grazing. As the route passes through the communities of Five Points and Helm, residences and businesses are adjacent to it. In Kerman, the predominant land use along Route 145 is commercial. The land use changes to primarily residential west of Route 99 in the City of Madera and the eastern edge of the city. Between Route 99 and the residential development of the eastern edge, commercial activities dominate.

Terrain: Generally flat, except at the beginning and end of the route where it is rolling.

A. Modal Alternatives

Passenger Rail Service: The Burlington Northern and Santa Fe tracks cross over Route 145 in Madera County at PM 15.12 but otherwise does not impact this route. A small Amtrak station is located on Storey Road/Avenue 15½ just south of Route 145 in east Madera. From this station Amtrak, via its six daily San Joaquin Route trains, provides passenger rail service to and from the City of Madera.

Transit Services: Transit services are provided along portions of Route 145 in both Fresno and Madera Counties. Within Fresno County, transit services are provided via a combination of Fresno County Rural Transit Agency’s (FCRTA) Coalinga Transit Route (which uses a portion of Segment 1 between Butte Ave [Fresno PM 8.92], and Five Points/Mt. Whitney Avenue [Fresno PM 13.20]), and FCRTA’s San Joaquin Transit Route (which traverses Segments 5 and 6 between American Avenue [Fresno PM 30.10] and Route 180 in Kerman [Fresno PM 35.10]). Kerman Transit also operates a dial-a-ride service within the City of Kerman that may, as needed, use a portion of this route while providing its local transit services.

Within Madera County transit services are provided along portions of Route 145 via a combination of the Madera Area Express (MAX), the Madera County Connection (MCC) and Madera’s Dial-a-Ride (DAR) service. Within the City of Madera MAX uses portions of Route 145 (i.e. Madera and Yosemite Avenues within Segments 11, 12, 13 and 14), MCC uses Route 145 between the City of Madera and the Route’s end at Route 41 (i.e. Segments 13, 14, 15 and 16), and Madera’s DAR uses Route 145 in and around the City of Madera area as needed for its dial-a-ride services. Outside of the City of Madera, MCC provides services along Route 145 to the

junction of Route 41; transit services on Route 41 are provided to Coarsegold, Oakhurst and Bass Lake.

Greyhound Bus Lines provides regional transit services from within the City of Madera to points north and south, but does not use any portion of Route 145 as a part of its route.

For a segment by segment list of specific transit providers, please see the Transit Services chart in the Appendix at the end of this TCR.

High Speed Rail: The California High Speed Rail Authority (CHSRA) has developed a plan to build a high-speed rail line from San Diego to San Francisco. Electric-powered, high-speed trains could be operated at speeds up to 200 mph, allowing for travel from downtown San Francisco to Los Angeles in approximately 2 1/2 hours.

The proposed 700-mile-long system would stretch from San Francisco, Oakland, and Sacramento in the north, through the Central Valley, and to the south through Los Angeles, and San Diego.

Should the CHSRA choose the Grapevine route alignment (instead of the currently proposed Palmdale/Lancaster/Tehachapi route), it may parallel I-5 and SR 99. The high-speed rail line would connect to the State's existing transportation network with station links to airports, intercity rail and bus lines, commuter rail, and urban rail transit lines. This will directly benefit all motorists with traffic reductions and will help improve travel times.

Bicycle Routes/Facilities: From its beginning at Interstate 5 (Fresno PM 0.0) in southwestern Fresno County to its terminus in Madera County at SR 41 (Madera PM 25.5), Route 145 is comprised solely of conventional two- and four-lane highway segments all of which are opened to bicycle travel. As is true of many state highways, much of this route has wide rideable shoulders while other portions have minimal shoulders.

Within Fresno County's General Plan - Part 3 - "Transportation and Circulation Element", the entire length of this Route is listed as a "Existing or Planned Bikeway". Within the Madera County 2004 Regional Bicycle Transportation Plan Route 145 is listed as a "Road of Regional Significance" whereupon the "...county is committed to upgrading the facilities as road reconstruction projects provide the required 4' shoulder for Class 2 bikeways. The county intends to sign and stripe such facilities as Class 2 [bikeways] as the continuity of shoulders makes it practical to do so."

Please refer to the "Bicycle Routes/Facilities" section of the Appendix for more detailed information on bicycle facilities along Route 145.

Pedestrian Access/Facilities: Pedestrian and Americans With Disabilities Act (ADA) compliance concerns for this route are to be found primarily within the Cities of Kerman and Madera where there are currently moderate concentrations of residential, retail and commercial properties adjacent to this Route's right-of-way. The remainder of this route is very rural with few, if any, current pedestrian or ADA concerns. However, any project constructed along this route's right-of-way could change this status and require the installation of appropriate ADA facilities such as crosswalks, sidewalks, curb cuts, ramps, railings etc.

Please refer to the "Pedestrian Access/Facilities" section of the Appendix for more detailed information on pedestrian and ADA access along Route 145.

B. Intelligent Transportation Systems

Route 145 has one existing and several proposed Changeable Message Signs (CMS). There are two proposed Highway Advisory Radios (HAR) near the junctions with Routes 269 and 180. Another application of ITS along this corridor is the deployment of Weather Stations at the San Joaquin River bridge (Avenue 5 ½).

Additionally, the 511 system is a new three-digit phone number program to access travel information that is being implemented throughout various areas of the country. Caltrans Reverse Commute Study/Special Studies Branch is working with Traffic Operations and Caltrans' Districts to develop a "California 511 Strategic Deployment Plan for Rural and Inter-Regional Traveler Information System" to meet the traveler's highway and transit information needs. Communication lines will be enhanced by the fiber optic network planned along the Route 99 corridor. Information is located in the ITS chart in the Appendix.

When fully implemented, 511 would be an easy to remember telephone number that can be accessed by travelers before and during their trip to obtain information about State highways, local roads, local transit, and State and local trains. At this time, the 511 system is not available in the Central Valley.

Deployment of ITS technology will enhance operational and safety efficiency of the route by informing motorists of traffic congestion, inclement weather, such as fog, highway construction, and/or closings.

The Caltrans Central Valley Transportation Management Center (TMC) monitors specific traffic locations from its headquarters at the District Office in Fresno.

C. Highway Facts

- Formerly known as Route 126, the portion from Route 180 to Route 41 was added to the State Highway System in 1933. The portion from Interstate 5 to Route 180 was added to the System in 1970. The entire route was added to the California Freeway and Expressway System in 1959.
- The route is a 67-mile highway with an Annual Average Daily Traffic (AADT) ranging from as low as 5,200 to as high as 18,400, with trucks constituting up to 40 percent of the AADT.
- The primary purpose of the rural portions of Route 145 is serving agricultural traffic, while in the urban corridors it serves a mix of commuter and through traffic.
- It serves as a "main street" in the Cities of Kerman and Madera providing access to businesses, residential roads and other nearby properties. It is also an important arterial roadway for circulation in these cities.
- Route 145 provides a connection for recreational traffic from the western San Joaquin valley region to Millerton Lake and Yosemite National Park. It also provides access to the

coast via Route 41, and Southern California via Interstate 5 for the valley residents.

- It is in the California Freeway and Expressway System and is a Federal-Aid Primary route functionally classified as a Minor Arterial, except for a 3-mile stretch through the City of Madera where it is classified as Principal Arterial.
- Designated as State Highway Terminal Access Route for larger trucks under the Federal Surface Transportation Assistance Act of 1982 (STAA).
- An adopted freeway agreement exists from Route 180 in Fresno County to 0.2 miles north of Avenue of 5 ½ in Madera County.

D. Specific Environmental Considerations

Sensitive biological species potentially occurring along Route 145 include the following special-status flora and fauna. The flora include the Succulent owl's clover, palmate-bracted bird's beak, San Joaquin woollythreads, San Joaquin Valley orcutt grass, hairy orcutt grass, and Green's tuctoria. The fauna include the San Joaquin kit fox, Vernal pool fairy shrimp, valley elderberry longhorn beetle, Swainson's hawk, giant garter snake, blunt-nosed leopard, and California tiger salamander.

In addition, historical and archeological sites are located along the route in unspecified area. These sites are monitored by the Caltrans Cultural Resources staff and Native American consultants and are subject to consideration under State and Federal laws related to cultural resources management. Environmental considerations to improvements on the route include the California Aqueduct, oil land, and commercial and residential developments in existence along the route.

III. Segment Map

On the following page is an 11x17" foldout TCR Segment Map for Route 145. This map shows the 16 segments of SR 145 in Fresno and Madera Counties.

Following the segment map an overview of Route 145 geometrics (including segment detail maps), land use and environmental considerations. The overview is split into six segment groups.

See the attached Segment Map on the following page

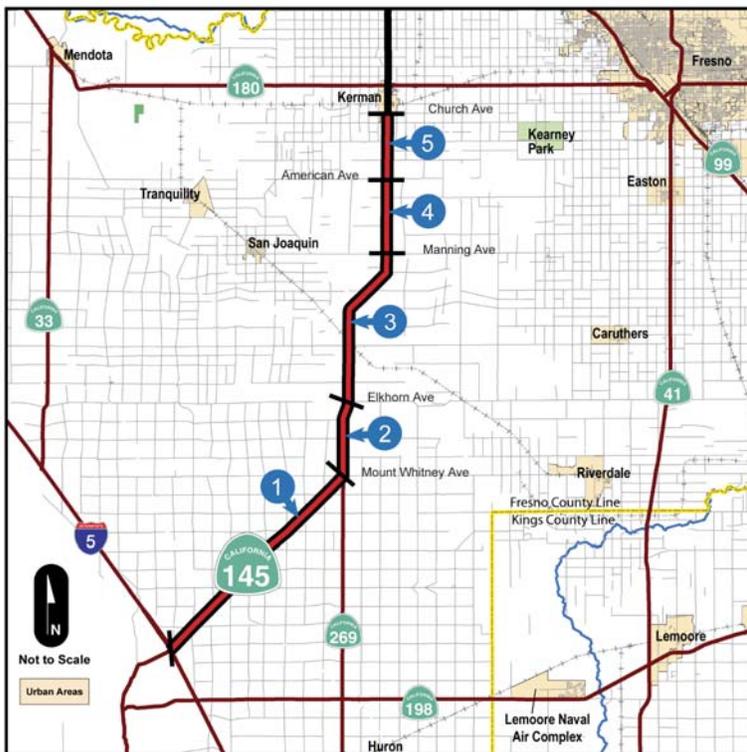
IV. Geometrics, Land Use, and Environmental Considerations

Segments 1-5: Interstate 5 to Church Avenue

Begins: At Interstate 5

Ends: At Church Avenue

Land Use: Along this segment are the rural towns of Five Points and Helm. The segment begins with rolling hills and becomes flat near Route 269. Land use consists of rural residential, agricultural lands, agri-business and rangeland. The highway crosses the California Aqueduct at Post Mile (PM) 3.10. A few oil wells with related storage tanks and facilities exist alongside the route.



Facility: This portion of Route 145 is mainly a 2-lane conventional highway with striped median. The Route Concept calls for Route 145 to be a 2-lane conventional highway with improvements between Interstate 5 and Elkhorn Avenue, and a four-lane conventional highway from Elkhorn Avenue to Church Avenue.

Interchange(s) and other State Highway connections:

- Interchange with Interstate 5.
- Intersection with Route 269.

Environmental/Historical Resources: The highway transverses through

agricultural land, south of the city of Kerman. There is scattered development, principally Five Points and Helm. The primary environmental issue in this segment revolves around threatened and endangered species, e.g. San Joaquin kit fox

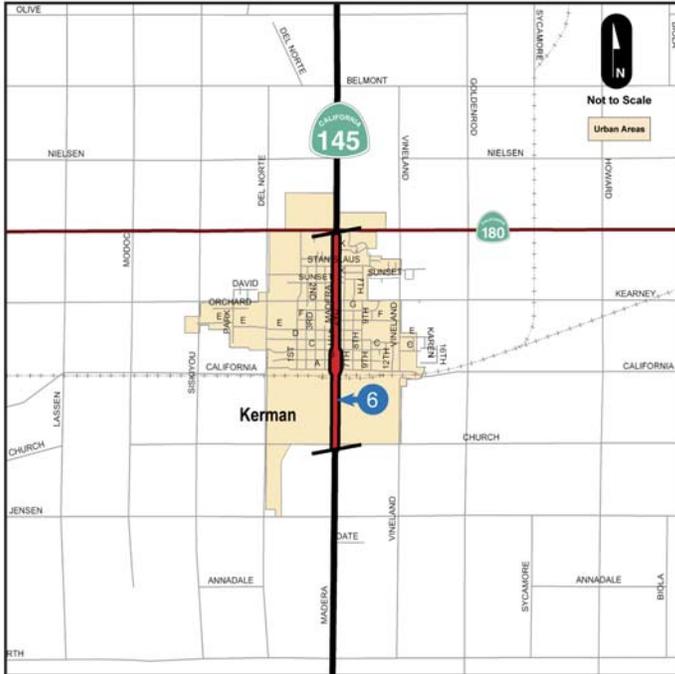
Segment 6: Church Avenue to State Route 180

Begins: At Church Avenue in Kerman

Ends: At State Route 180

Land Use: This segment is within the City of Kerman and the predominant land use is commercial activities with a mix of residential.

Facility: The existing facility is a 4-lane urban conventional highway that functions as the “main street” for the City of Kerman. Part of the median in the City of Kerman functions as a recreational parkway. The route concept for this segment calls for the highway to remain a 4-lane conventional highway facility.

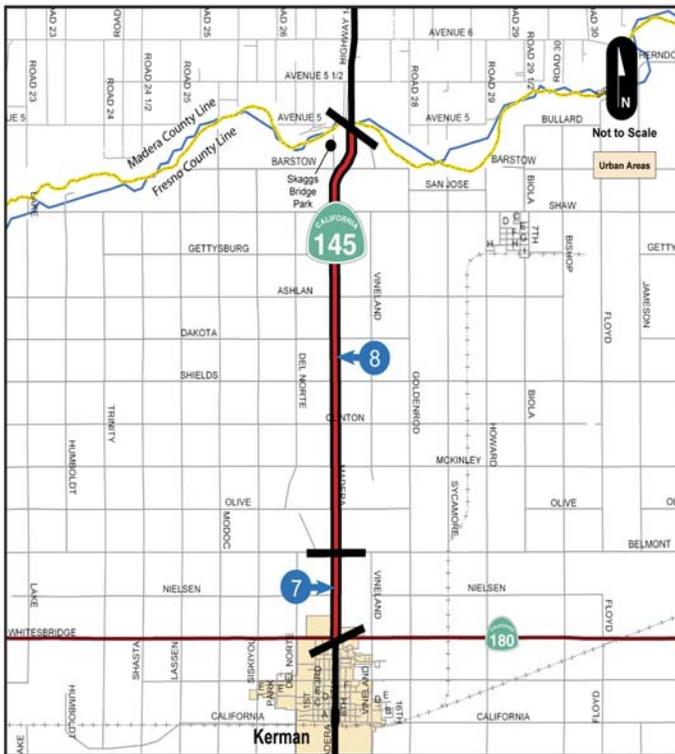


Interchange(s) and other State Highway connections:

- Intersection with Route 180.
- **Environmental/Historical Resources:** Route 145 passes through the City of Kerman. Hazardous waste issues predominate in this segment. Underground storage tanks have been discovered in the right of way, and it is probable there are undiscovered tanks present.
- Properties potentially eligible for the California or National Registers of Historic Places may exist.

Segments 7-8: State Route 180 to Fresno/Madera County Line

Begins: At State Route 180
Ends: At Fresno/Madera County Line



Land Use: The predominant land uses are agriculture (crop production) and rural residential.

Facility: This is a 2-lane conventional highway located almost entirely in a flat terrain. Lane width is consistently 12 feet with striped median.

Environmental/Historical Resources: The highway passes through agricultural lands and scattered crossroad development. The major environmental issues are focused at the San Joaquin River crossing. There is a public-owned park near the highway at the river. Water quality associated with storm water drainage is another potential issue at the river.

Segments 9-10: From Fresno/Madera County Line to Avenue 13

Begins: Fresno/Madera County Line
Ends: At Avenue 13 in City of Madera



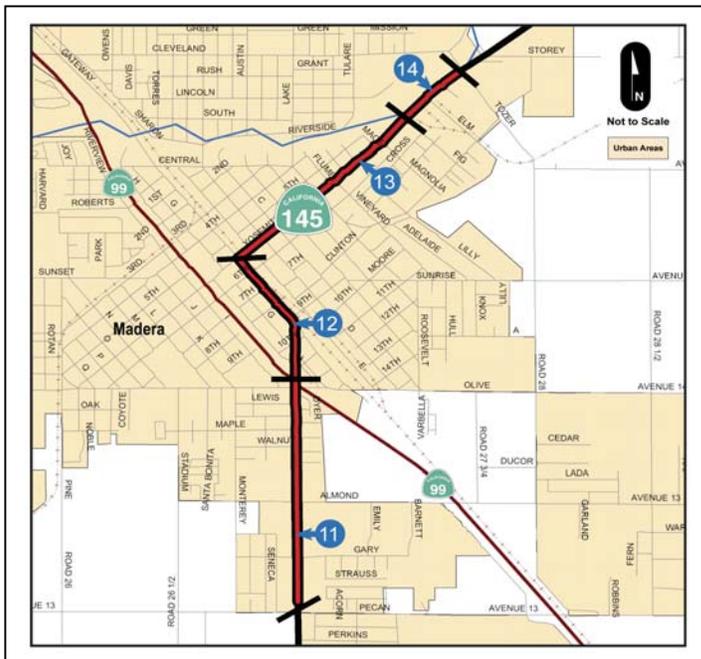
Land Use: Predominantly consists of agriculture, but as it approaches Avenue 12, the land use transitions to a mix of residential and commercial activities. This urban transition will intensify in the future given that the City of Madera’s urban boundary now starts from Avenue 12.

Facility: This is a two-lane conventional highway with striped median in flat terrain.

Environmental/Historical Resources: The highway passes through agricultural land and scattered crossroad development. Threatened and endangered species and wetland issues at the

water crossings are the primary environmental issues in this segment.

Segments 11-14: From Avenue 13 to Tozer Street (City of Madera)



Begins: At Avenue 13 in the City of Madera

Ends: At Tozer Street in City of Madera

Land Use: Segments 11-14 consists of urban land in the City of Madera, with mixed land uses consisting of residential, commercial, and industrial facilities.

Facility: The highway alternates between a 2-lane and a 4-lane facility with a mix of raised and striped median as it traverses the City of Madera. Some portions of the highway that serve as “main street” are striped for street automobile parking.

Interchange(s) and other State Highway connections:

- Interchange connection at Route 99.

Environmental/Historical Resources: Route 145 passes through the City of Madera. The primary environmental issue is the built environment. Two historic properties lie adjacent to the highway; there may be others not yet identified.

Segments 15-16: From Tozer Street (City of Madera) to Route 41

Begins: At Tozer Street in City of Madera

Ends: At the Junction with Route 41



Land Use: This stretch of highway 145 traverses agriculture land with some rural residential.

Facility: This is a 2-lane conventional highway that starts off on a flat terrain but transitions into rolling terrain. Lane width is 11 feet with striped median. There is a Park-and-Ride facility at the junction with Route 41.

Interchange(s) and other State Highway connection(s):

- Intersection at Route 41

Environmental/Historical Resources: The highway passes through grazing land. There is scattered development present. The

primary environmental issue centers around wetlands (vernal pools). Vernal pools are also habitat for listed species. Archaeological sites have also been found in this segment.

V. Concept Rationale

Route Concept LOS:

The Route Concept Level of Service (LOS) assigned for this route is for the daily peak travel periods when traffic volumes are highest. Route Concept LOS "D" is assigned to the entire length of Route 145.

Urban: The urban areas of Kerman and Madera, and the growth area along segment 15 have relatively high traffic volumes and urban characteristics. This level of service considers the cost effectiveness for the urban travel environment.

Rural: The rest of Route 145 is assigned Route Concept LOS "D" because it is a rural Minor Arterial that mainly serves local travel demand.

Concept Facility: The Concept Facility for Route 145 ranges from 2-lane improved conventional highway or 4-lane conventional highway throughout District 6. Specifically, the following list shows the facility for the year 2030, beginning with the segment at the Route 145/Interstate 5 Junction and proceeding northward to the Route 145/41 Intersection.

- **2-lane improved conventional highway (Segments 1-5):** The highway will remain a 2-lane conventional highway.
- **4-lane conventional highway (Segment 6):** The existing highway will remain a 4-lane conventional highway.
- **4-lane conventional highway (Segments 7-10):** Widen from an existing 2-lane conventional highway facility to a 4-lane conventional highway.
- **4-lane conventional highway (Segment 11):** Widen an existing 2-lane conventional highway portion of this segment to a 4-lane conventional highway.
- **4-lane conventional highway (Segment 12):** Widen from an existing 2-lane conventional highway facility to a 4-lane conventional highway.
- **4-lane conventional highway (Segment 13):** The existing highway will remain a 4-lane conventional highway.
- **4-lane conventional highway (Segment 14):** Widen from an existing 2-lane conventional highway facility to a 4-lane conventional highway.
- **2-lane improved conventional highway (Segments 15-16):** The highway will remain a 2-lane conventional highway.

The Ultimate Facility beyond 25 years is planned to be a 4-lane conventional highway from Interstate 5 to Tozer Street, and a 2-lane improved conventional highway from Tozer Street to the junction with Route 41.

VI. State Route 145 Transportation Concept Report Summary Chart

The Summary Charts on the following four pages indicate that SR 145 is divided into 16 distinct segments that provide descriptive and technical information, both current and forecast, for the State highway. It also has a linear geographic diagram that illustrates the major State and local highway facilities, along with key natural features and City/County boundaries, current highway geometrics, i.e., conventional highway, expressway, and freeway.

A “Chart Explanation” bar defines what is shown on the Chart with the exception of self-explanatory technical information. The Summary Chart also delineates functional classification, various highway designations, environmental information, and general plan information.

See the following four pages for the Summary Chart.

VII. A Review of Route 145 Performance: Current and Future

A comparison of the current and future operating traffic LOS to the designated Route Concept LOS is a way of measuring the existing and future performance levels on a State highway. For purposes of this review, a segment on Route 145 is deficient when it operates below the designated Route Concept LOS of D.

As of the year 2006, Route 145 is operating at LOS D or better for most of its entirety. The segments within the urban boundaries of Madera are operating at mostly LOS C except for Segment 12 - near the junction with Route 99, which is operating at LOS E.

By the year 2030, the LOS will deteriorate in some segments due to increased traffic as a result of growth along this corridor and changes in land use designations by local jurisdictions. The route will operate mostly at LOS E or F from the junction with Route 180 to the end of the route at the junction with Route 41 by the year 2030. Segments 7 through 11, 13 and 16 will operate at LOS E, while Segments 12, 14 and 15 will operate at LOS F.

These identified deficient segments should continue to meet their designated Route Concept LOS D through 2030 with planned improvements. The exception will be Segment 12 that will still be deficient even with improvement to a 4-lane conventional highway. This deficiency will be as a result of increased travel demand and lack of adequate capacity. Apart from being urbanized, this segment also provides access for traffic bound for Route 99.

This deficiency can't be remedied by further widening to 6-lane highway because of the restrictive nature of right-of-way (80-feet) within downtown Madera. A different strategy will be needed to attain the concept LOS D given the downtown conditions. In downtown Madera, Route 145 functions as the community main street – serving pedestrians, bicyclists, businesses and public transit. It supports economic growth and gives character and identity to the community.

Future highway improvements along Madera urban corridor will require flexibility – balancing community needs with public safety concerns. Further highway improvements beyond the 4-lane facility will be limited to re-striping, signal synchronization, on-street parking reconfigurations, lower speed limits and the like.

There were past discussions on realigning Route 145 around the downtown, but there have been no recent proposals. Also, there were past efforts and discussions about the State relinquishing a portion of the route within downtown Madera to the City of Madera. The legislative initiative was locally sponsored and largely driven by efforts on the part of the city to have more flexibility and responsibility for decisions on the portion of the route that serves as main street for downtown Madera.

Another strategy to optimize mobility along this route will be Caltrans efforts to employ ITS improvements such as changeable message signs, highway advisory radio and roadway weather information systems to improve efficiency and traveler safety. This will be in addition to the regular maintenance and periodic operations and safety improvements through the State Highway Operations Protection Program (SHOPP). There are a host of SHOPP maintenance and rehabilitation projects that are programmed for Route 145. They include Asphalt Concrete (AC)

overlays, shoulder widening, culvert rehabilitation, left turn phasing, upgrading signals, and bridge scour projects.

See the following pages for Section VIII. Planned and Programmed Improvements to Route 145.

VIII. Planned and Programmed Improvements to Route 145

The following table shows both the planned and programmed projects for Route 145 over the next 25 years. The projects shown are capacity-increasing projects.

The table shows:

1. The specific segment.
2. Route 145 Planned Projects-the listing document (RTP, ITSP or STIP Candidate), description of the project, and projected completion date(s).
3. Route 145 Programmed Projects-the listing document (STIP), description of the project, and projected begin and complete construction dates.
4. Only Route 145 segments that have either planned and/or programmed projects.

Project scope and technical data are for general informational purposes only. If current information is needed, please verify with the Caltrans District 6 Office of Advance Planning at (559) 4488-4162.		
Segment PM From/To	SR 145 Planned Projects	SR 145 Programmed Projects
7 FRESNO PM 35.1-40.1 Route 180 To Shaw Ave	RTP: FRE 145 PM 35.1/ 40.1 From Route 180 to Shaw Ave: 2-lane conventional highway to 4-lane conventional highway (Future).	There are no projects currently programmed for this segment
9 MADERA PM 0.0/7.0 Fresno/Madera County Line to Avenue 12	RTP: MAD 145 PM 0.0/7.0 From : Fresno/Madera County Line to Avenue 7: 2-lane conventional highway to 4-lane conventional highway (Future).	There are no projects currently programmed for this segment
11 MADERA PM 8.6 – 9.1 Almond Avenue to Avenue 13	RTP: MAD 145 PM 8.6/9.1 From : From Almond Avenue to Avenue 13: 2-lane conventional highway to 4-lane conventional highway (Future).	There are no projects currently programmed for this segment
12 MADERA PM 9.7 – 9.1 Yosemite Avenue to Route 99 GATEWAY (SR 145)	RTP: MAD 145 PM 9.7/9.1 * From : Yosemite Avenue to Route 99: 2-lane conventional highway to 4-lane conventional highway (Future).	There are no projects currently programmed for this segment
15 MADERA PM 10.2 – R12.6 Lake to Road 29	RTP: FRE 145 PM 10.2/R12.6 From Lake to Road 29 w/RR underpass: 2- lane conventional highway to 4-lane conventional highway (Future).	There are no projects currently programmed for this segment.

* Note: This is the only future planned project that is fiscally constrained on this list.